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Making mature undergraduates' experience visible: exploring belonging and use of digital technologies

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Abstract The aim of this paper is to explore the role that informal networks, interactions and digital technologies play in supporting the participation in undergraduate education of eleven mature students coming from widening participation backgrounds in one research-intensive United Kingdom (UK) university. During eighteen months mature students were co-researchers of the longitudinal qualitative study 'DD-LAB: Digital Diversity Learning and Belonging'. Along with problematizing the heterogeneity of students grouped under the category 'mature', we found that participants' financial circumstances, family commitments, and home location, were as influential as age when understanding their participation in university. Digital technologies played a role in fostering belonging and participation in academic and social spaces. Yet, engagement in a digital world did not necessarily mitigate their positioning as a minority group within a research-intensive institution. Although digital technologies and informal networks helped mature students overcome institutional struggles and expanded modes of belonging, we conclude that the institutional and social positioning constrained mature students sense of academic and social integration, leading to continuing inequalities that universities need to address.

Key words Widening participation; undergraduate students; identities; agency; digital technologies; mature students

Introduction

Digital Diversity Learning and Belonging Study

This paper draws on "DD-LAB: Digital Diversity Learning and Belonging" a longitudinal qualitative study carried out during 2013-2016. The study aimed to understand the ways in which digital technologies are influencing the work and studying practices of widening participation (WP) students. We took a broad interpretation of widening participation: namely, students who did not attend a fee-paying school, first generation in their

family to participate in higher education (HE), and their intersections with black and minority ethnic backgrounds (BME), local and mature students. We investigated how digital technologies supported or constrained their sense of belonging and participation to a highly selective UK university. We also explored the role that informal social and digital networks and interactions played in students' successful participation. While the study included under-represented students from a wider range of backgrounds and its main findings have been reported elsewhere (Timmis, Yee & Muñoz-Chereau, 2015a; Timmis, Yee & Muñoz-Chereau, 2015b; Timmis, Yee & Bent, 2016), this paper focuses on a subsample of eleven mature students.

Mature students

In the UK any student age 21 or over on 30 September of their year of entry to HE, is officially categorized as mature (Higher Education Statistics Agency (HESA), 2016). According to the Students in Higher Education 2014/2015 report, from the total of 826,895 mature students enrolled at the undergraduate level in the UK, 52% are 21-24; 31% are 30-59; 15% are 25-29; and only 2% are over 60 years-old (HESA, 2016). Evidently this classification assembles a heterogeneous group not just in terms of age, but also gender, ethnicity, previous qualifications, work experience and motivations, subject, mode and institution of study (McVitty, Morris & Million, 2012). Studies focusing on students over 21, being away at least one year from continuous education, coming to HE with other entry qualification (such as Access courses), and those who have changed careers, are all grouped under the umbrella term 'mature' (Leathwood & O'Connell, 2003). Given that the use of terms such as 'mature' can be imprecise and problematic, researchers in the field have warned against the assumption of a universal mature experience or identity, alongside avoiding the binary distinction between young and mature students (Wilson, 1997; Crozier et al., 2008; McCune et al., 2010; Thomas, 2012; McVitty, Morris & Million, 2012). Research on mature students has therefore suffered from a lack of conceptual consistency. More precise terminology is needed to describe the differential experiences of non-direct entrants to HE.

A more focused approach to mature students at the undergraduate level is also necessary. Most longitudinal studies looking at participation, outcome degrees and dropout rates in the UK have excluded mature students from their analyses (see for example Smith and Naylor, 2001; Gayle, Berridge & Davies, 2002; Ogg, Zimdars and Heath, 2009; Chowdry et al., 2013; Sutton Trust, 2011; Moore, Sanders & Higham, 2013; Crawford, Macmillan & Vignoles, 2014; Crawford & Greaves, 2015). A research focus on young full-time students may be because data about this population is easier to capture (Moore, Sanders & Higham, 2013) and due to the impact of fee

changes in the UK. Systematically excluding mature students from longitudinal studies, reveals a tendency towards making them invisible. This is precisely the gap this research intends to overcome.

Mature students' participation in HE seems to differ in critical ways from that of their younger counterparts (O'Donnell et al., 2009; McCune et al., 2010; Tobbell, O'Donnell & Zammit, 2010; McVitty, Morris & Million, 2012). Qualitative and mixed-methods studies focusing on students' experiences and trajectories into HE have, to some extent, helped address the call for more conceptual and methodological rigour in studying mature students' participation. Mature students' participation in HE is normally a self-initiated event, perceived as relevant to their personal goals (Richardson, 1994). Moreover, their additional life experiences can translate into greater academic success, a fact stressed more than two decades ago (Richardson, 1994). Tensions for mature students derived from family responsibilities have been well documented. Such duties include managing care arrangements and providing financial stability, which intersect with difficulties in accessing study spaces provided by universities and dealing with feelings of isolation (Ashcroft and Peacock, 1993). Other qualitative studies have highlighted contributing aspects that help mature students to succeed, for example high levels of commitment, motivation and experience (Powell, 1992).

Under-represented mature students' participation and belonging in HE

In order to interrogate the experiences of mature students from WP backgrounds an intersectional approach needs to be considered. Intersectionality is understood as:

‘the relationships among multiple dimensions and modalities of social relations and subject formations’ (McCall, 2005: 1771)

This means that issues of class, age, ethnicity and gender are intertwined with students' experiences of HE (Tett, 2004; Crozier et al., 2008). For example, a study looking at 23 mature working-class students at undergraduate level, argues that class was mediated by students' gender and ethnicity through their transition into HE. Issues around class, belonging, fitting in and feelings of authenticity were key to understanding their transitions, especially because

‘working-classes have been positioned as the ‘other’ of higher education’ (Reay, 2002: 413; Reay, 2017).

Reay (2002) reported that in comparison with their younger counterparts, mature students regarded education as a means of self-fulfilment, prioritized

the local and the familiar, developed a strong sense of community commitment, and searched for safety over challenges. Mature students' HE experiences have been described as more risky, costly and uncertain than the experiences of middle class students. Therefore a two-way process of change and development from students themselves, as well as from the educational culture of the institution is needed, if perpetuation of systematic inequalities is to be tackled (Tett, 2004). Furthermore, mature students' fragmented learning careers, work experiences and family commitments, which influence not only their reasons for study are important when exploring mature student's experiences in HE (McCune et al., 2010).

The question concerning what kind of participation counts as critical once mature students coming from WP backgrounds reach undergraduate level, is also crucial. For all students, transitions into HE are an on-going process of meaning-making where identities are negotiated to gain a sense of belonging to the course and university (Kahu, 2013; Holmegaard et al., 2014; Masika and Jones, 2016). Under-represented students' struggles and experiences of barriers through cultural shifts and unfamiliar academic expectations required for their successful participation, are well documented (Daddow, 2016). On a more optimistic note

‘a culture of belonging’ (Thomas, 2012: 14)

is critical to the success and well-being of under-represented students at university. This should be particularly fostered within the academic sphere and through supportive peer relationships and meaningful interactions between staff and students. To maximise university experience and increase the potential for post-university success, mature students coming from widening participation backgrounds must become confident, successful learners, and integrate into the culture and practices of university life. However, developing a positive learning identity in HE is complex and contradictory. The process can evoke powerful feelings of displacement, alongside hopeful anticipation and pleasure, and is shaped by educational discourses and structures (Tett, Cree & Christie, 2017).

Surprisingly little attention has been paid to the kind of participation that successful mature students engage in once they become undergraduate students. According to previous studies, there is a need for policy and teaching practice for mature students to be informed by understandings of

‘how the experience of being a mature student is lived’ (Wilson, 1997: 347)

. Focusing on this under-researched area in a research-intensive university is pressing for many reasons. The risk of overlooking the experiences of mature is high, as they represent a minority group, accounting for only 4.6% of the undergraduate enrolment (University Statistical Summary Dec. 2012),

which has declined even further in recent years (Universities UK, 2015). Also, according to HESA figures for the cohort studied, the university where this study was conducted is one of the lowest ranked HE institutions (7 out of 163) in terms of participation of students coming from low Socio Economic Status (SES), low participation neighbourhoods, and state schools and colleges. In this sense, this study focuses on a minority within a minority. Whilst research has been conducted in the UK with similar students in analogous institutions, our study expands this focus by exploring the role that digital technologies and informal studying practices play in the social dimensions of undergraduate life. The paper explores how mature students coming from widening participation backgrounds enact their agency by employing digital and other resources, to overcome institutional struggles and build spaces to belong and become part of the university community.

Digital technologies and participation

We live in an increasingly digital world where technologies are part of the practices of everyday, social and educational life (Miller, 2016). This is particularly the case at university where it is not possible to be a student without engaging with formal digital systems and practices, for example assessment (Jones, 2013), but also with informal digital networks and social media (Timmis, 2012). Yet, living in a digital world is dynamic and ever changing. Miller (2016) found that many social networks such as Facebook are becoming more commonly used by older people, particularly those over 65, whereas younger people (for example teenagers and direct entrant university students) are becoming more drawn to the visual possibilities of sites such as Instagram. Miller (2016) draws attention to concerns over public/private boundaries which social media and online social networks frequently disrupt. This suggests that whilst the myth of a generation of 'digital natives' has been roundly critiqued and debunked (see Jones 2013), there is a need to examine different types of experiences of using digital technologies at university, particularly in relation to potential inequalities. Despite this, the role that digital technologies play in the lives of mature students, particularly those coming from widening participation backgrounds' whilst at university, has been little explored.

The belief in technology as the solution to social problems has long been prevalent in policy discourses in HE (Jones, 2013), and claims for its potential for individual emancipation and pedagogical transformation, have seldom been critiqued (Selwyn, 2016). Earlier work has sounded warning calls when stating that digital technologies and online social networks may introduce more barriers than opportunities for widening participation (Selwyn, 2011; Hughes, 2009). There is a large body of literature that

stresses the role of digital technologies in formal educational activities (see for example Sánchez, Cortijo & Javed 2013), preparations for university (DeAndrea et al., 2012) and social interactions (for example Hamid et al., 2015). However, research on the role of informal digital practices in the lived experiences of under-represented groups within higher education, is limited. Whilst digital technologies offer possibilities for new ways of learning (Säljö, 2010), their influences are neither neutral nor necessarily positive (Selwyn, 2011). Indeed, there are many downsides to the use of technology in higher education (Selwyn, 2016), although they are pervasively part of students' learning lives (Ellis and Goodyear, 2013). It is therefore important to look at the possibilities and constraints that digital experiences of university might involve, together with who participates in their use and how.

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Theoretical framing

Digital diversity

The pervasiveness of digital technologies necessitates an understanding of the interplay between technical affordances and social shaping possibilities. We adopt a sociocultural position that sees technology as part of the complex historical, cultural and material context and social practices of students' 'learning lives' (Gil & Erstad, 2018). Thus, whilst digital technologies are increasingly part of the fabric of the world students inhabit, they are not the sole mediators, nor deterministic of their experiences (Timmis, Yee & Bent, 2016). The concept of 'digital diversity' has superseded the notion of a 'digital divide' in much of the literature but this has tended to be normative (see Clark, 2011), i.e that a diversity of digital technologies is always a positive benefit. Our interpretation, however, argues for a dialectical and relational approach that encapsulates the idea that people from more diverse and non-traditional backgrounds may engage or need to engage differently with digital cultures within university and other communities. We suggest interrelated issues of equality and social justice may influence such engagement (Timmis, Yee & Bent, 2016). Additionally, digital media are an increasing part of the landscape we inhabit, which offers opportunities for more diverse ways of working, studying, and experiencing university life. This suggests the need to emphasise students' agency, voice, and capacity for change, which makes it particularly helpful when investigating the role of digital technologies in learning and belonging in higher education (Timmis, Yee & Muñoz-Chereau, 2015a; Timmis, Yee & Muñoz-Chereau, 2015b; Timmis, Yee & Bent, 2016).

Agency and identity

In line with previous work emphasising the key role of students' learner identities in the creation of a sense of belonging at university (Tett, 2004; Crozier et al., 2008), we pay special attention to mature students' sense of belonging. More precisely, we have employed Holland and her co-authors' work (Holland et al., 1998) on agency and identity in cultural 'figured worlds'. Drawing on theoretical contributions from Vygotsky, Bakhtin, and Bourdieu, Holland conceptualised a 'figured world' as

'a socially and culturally constructed realm of interpretation in which particular characters and actors are recognized, significance is assigned to certain acts, and particular outcomes are valued over others' (Holland et al., 1998: 52).

Figured worlds are located in given times and spaces. They are not neutral, but spaces resulting from power relations and positionings. What we do and how we act whilst inhabiting figured worlds such as universities or digital social networks, is part of how we build our identities

'through continued participation in the positions defined by the social organisation of those worlds' activity' (Holland et al., 1998: 41).

Holland's socially situated definition of identity enables us to focus on how mature students adapt to shifting roles within different contexts and the ways in which culture mediates their participation. Cultural artefacts such as digital technologies can also act as 'pivots' into different worlds and experiences, as well as opening up alternative worlds online. However, identities are not only formed through participation in figured worlds, but also through positionality. Our position in particular figured worlds in terms of power, difference, entitlement, hierarchy, social affiliation and distance from others, also define who we are and how we relate to others.

Methodology

Involving undergraduate students as co-producers has featured prominently in different universities across the UK in the last decade, inspiring a radical framework that challenges mainstream orthodoxies of HE by engaging academics and students in the co-production of knowledge and meaning (Neary, 2014). Students as producers is about students

'engaged in authentic research projects in order to produce academic work' (Ashwin & McVitty, 2015: 348)

In line with this approach to research (Timmis & Williams, 2013), undergraduate students were invited to participate in this study as co-researchers investigating their learning lives throughout their second year as part of the wider study mentioned in the introduction. By inviting mature students to volunteer for the study, we aimed to avoid positioning them in the deficit. The co-researcher methodology fitted to this purpose and

allowed co-researchers to retain control over what, when and with whom to share their personal data. Decisions relating to anonymity and potentially sensitive data were agreed with them at the outset and before dissemination. We focused on second year students, not just because previous studies have focused on transitions occurring during the first year (Tett, 2004; Reay, Crozier & Clayton, 2009; Tett et al., 2012), but also due to our interest in exploring mature students' sense of belonging after the initial period of adjustment. Therefore, students kept documentaries of their learning activities during the course of the second year of their studies, with a special focus on their use of digital technologies. Documentaries have been regarded as one suitable data collection technique to access students' learning identities and participation trajectories in different contexts (Erstad, 2012). Co-researchers were provided with an iPad to document their learning lives using the application 'Evernote' which enabled the collection of multimodal data (audio, video, text and image) over time. By using this application for data collection, co-researchers created multimodal representations of everyday interactions with digital technologies, social and cultural practices.

Students documented their daily lives on a regular basis in three phases of data collection, of four-week periods each. These took place during the academic year 2013/14 in November, February/March and April/May. The first instance of data collection included individual interviews. Phase 2 included focus groups and was followed by phase 3 which once again included individual interviews. The final data gathered included 240 Evernote documentaries produced by the eleven mature students co-researchers, 22 interviews and 5 focus groups in which they all participated.

Research questions

The study was framed by the following research questionsⁱ:

To what extent is 'a culture of belonging' and engagement experienced by mature students coming from widening participation backgrounds?

What are the impacts of informal support and peer relationships on mature students coming from widening participation backgrounds in their learning lives?

How are digital technologies being mobilised by mature students coming from widening participation backgrounds for educational, cultural and social purposes?

Mature student co-researchers

The eleven mature students were a diverse group. Most (7) were on their 20's, whilst four were over 30 years of age. Nine were White/British, and two were from BME backgrounds. Six were female, and five male. Seven commuted from within the regional area, and four lived in campus-based accommodation in the city where the university is located. In line with McCune et al. (2010), who reported that mature students were more likely to have fragmented learning careers, seven co-researchers were undertaking their first degree after spending some time in the labour market, and four had previously abandoned a course. Four were enrolled in the Faculty of Medicine and Dentistry; three in Social Sciences; two in Veterinary Sciences; one in Science, and one in Arts.

Analysis

A multilevel, multi-layered approach to analysis was conducted which included thematic and visual analysis (Braun and Clarke, 2013; Pink, 2013) followed by a more in-depth theoretically informed stage where key themes were interrogated collaboratively in greater depth. Multi-layered interpretations are particularly important when analysing visual materials and digital images as meanings may alter as they encounter

‘new viewers and materialities’ (Pink 2013: 143).

Nvivo10 was used to manipulate textual and multimodal analyses. After transcription, data was thematically coded (interviews, focus groups transcripts and Evernote multimodal documentaries) by the first author, paying close attention to relationships across data collection phases and data types. After weekly meetings with the second author for discussing emergent themes, four main themes were identified: Widening Participation (i.e challenges and opportunities derived from being an under-represented student), belonging and identities (i.e spaces to belong and improvisations); use of digital media, and lived experience. To answer the research questions, we examined relationships between the main themes and sub-themes in relation to the theoretical framework, for example, how digital technologies helped or hindered mature students' sense of belonging and participation, and the role of improvisations in resisting positioning in different figured worlds. Preliminary findings were discussed and refined at key points with the co-researchers.

Findings

Findings are organised according to mature students' key themes derived from our research questions and multi-level analysis. Pseudonyms are used in reporting.

To what extent is 'a culture of belonging' and engagement experienced by mature students coming from widening participation backgrounds?

In similar ways to previous literature (Tett, 2004; Crozier et al., 2008; McVitty, Morris & Million, 2012; Thomas, 2012), mature students in our study were a heterogeneous group, ranging from 22 to 78 years of age, covering a vast range of maturity and life experiences. Where relevant, we highlight the differential experiences of those aged 21 to 30 and those over 30 as the findings suggest that experiences between these age bands may differ whilst, as mentioned above, we recognise that there are many intersecting factors which suggest a more nuanced and complex picture. In general terms, the over 30's mature students found it more difficult to develop their sense of belonging than those mature students in their 20's and also in comparison to the younger students (aged 18 to 21) coming from similar backgrounds. Perhaps this was because even though most of them were a few years ahead of the school leavers, mature students tended to attribute their difference to a combination of age, experience and background:

I wouldn't say I really particularly felt like I belonged last year. I think I ... like we used to make a joke that we ... like because I look quite young, that I was like the wolf among the sheep and that no-one really realised I was older... (Kate, Interview, 20's Mature, Health Sciences)

Even without the evident age difference experienced by mature students in their 30's, Kate felt as if she was in disguise or invisible among her younger student peers.

However, the strongest barrier identified by mature students in our study, was the extremely privileged backgrounds from most of the students they encountered. Being a minority (mature) within a minority (widening participation) felt as a lonely journey into HE:

"Whilst I believe that I can get by in an elite institution such as [the university], I often wonder if the feelings of isolation I've experienced at times during my degree would be lessened in a less prestigious university with a much more diverse range of students" (Julie, Evernote documentary, 20's mature, Social Sciences).

Some of the opportunities provided by the university were valued by mature students:

“I have distributed some guidance notes on formal report writing etc. that I had been given as part of my mature student induction, via PowerPoint, that others in my classes could find useful” (Stuart, Evernote documentary, over 30’s mature, Science).

But with other opportunities, they felt disconnected or even excluded by some tutors, lecturers and younger peers:

“I’m a mature student on our course and they’re definitely massively in the minority and sometimes I feel that the way the course itself it’s not really geared to mature students at all. And, I don’t know, some of the tasks set, and sometimes some of the things that are said in lectures you sort of think “Oh we’re here too.” (Stuart, Focus Group 4, over 30’s mature, Science).

To complement their finances, most of the 20’s mature students were balancing their studies while working part-time in jobs including cleaning, bar-tendering, waitressing and elderly care. This additional work commitments not only constrained their participation in the academic and social dimensions of university life, but working evenings and weekends during term time and holidays, meant mature students had no free time, negatively affecting their wellbeing. In some cases, the constant worry about money, made it difficult for them to focus on their studies.

“I’ve got two jobs and then uni as well so I’m trying to balance all (...) I clean at the University and I’m a care worker at a care home (...) Draining. [laughs] [pause] November, yes. Very draining. I have to get up at five every morning and I get to bed at like midnight so, it’s a very long day” (Bob, Interview, 20’s mature, Veterinary Sciences).

Furthermore, the costs associated with university society-related activities acted as a barrier for most of the 20’s mature students, making them feel excluded:

“They do hiking expeditions to Snowdonia and something like that. It’s just a bit expensive, that’s why I ended up not doing that. Cause I think it was twenty pounds to join and then 50, 60 pounds every time you wanted to do one of the trips. Which really is quite cheap for a weekend but it’s still quite a lot to commit really.” (Brian, Interview, 20’s mature, Health Sciences).

However, all of the mature students were aware of the importance of expanding their interactions with peers and tutors and some of the 20’s mature students were keen on taking leadership positions (year representative, society president, etc.):

“I have been the Year rep for my course, so I think that gives me a great sense of belonging because it sort of puts me at the middle of the staff/student liaison” (Kate, Interview, 20’s Mature, Health Sciences).

The places where mature students lived also played a key role in terms of belonging and participation. Paradoxically, the more local students lived, the harder were the challenges for integration and participation into the university world:

“If you wanted to integrate really well with your peers on your course it’s so ... you can’t just live in [neighbourhood] [laughs] because that’s hard, you know, it’s far away from everyone and anything that might be going on.” (Julie, Interview, 20’s mature, Social Sciences).

All of the over 30’s mature students had family commitments, which included looking after their children and grandchildren. Even those that lived locally to the university, found it more difficult to participate. Some of them had stronger links to the place where they lived, from where they commuted on a daily basis. However, this made it difficult for them to fully participate in the academic and social worlds of university.

“Although living at home has helped me combine studying and family life, I wouldn’t recommend it unless really necessary as it mitigates against that sense of belonging. Also for students from disadvantaged backgrounds this does not help with moving into a different space emotionally and mentally.” (Sophie, Evernote documentary, over 30’s mature, Social Sciences).

Another common theme that emerged from mature students experiences, was a dual sense of belonging, as four of them were enrolled in their second career, or were currently studying their second choice course, before hoping to move to their preferred one, for example medicine. This dual identity was complex in terms of their sense of belonging, although having taken part in other undergraduate courses worked as an advantage for these students. They tended to be confident learners, which perhaps relates to the reasons they provided for having dropped -out , which were not based on academic, but on vocational and personal grounds.

“I still feel like I belong to [other university] rather than this university. It’s weird; it’s a very weird feeling. I still feel a bit like an outsider, I feel like I’ve come in from somewhere from another university and I even still have my old university email which I still log into so I still feel like I’m part of [other university]” (Alan, Interview, 20’s mature student, Health Sciences).

The more mature they were, the less they socialized and the harder it was for them to feel they belonged. The over 30’s mature students also assigned less importance to the social dimension of university life. This was

reinforced by the challenge of finding points of connection with the younger students, especially during the first year when many of the conversations were held outside of class:

“The studying is paramount for me. And making relationships is not paramount because I know after the course I won’t see my co-students again I’m sure and... I do find it a bit hard to belong... I’ve waited so long for this I can’t afford... I don’t want to afford anything intruding on the studying” (Carmen, Interview, over 30’s mature, Arts).

Applying Holland’s situated definition of identity, it is clear how previous participation in HE enhanced the agency of those mature students who were ‘returners’ and helped them build a stronger academic identity. Accordingly, over 30’s mature students’ sense of belonging had less to do with fitting in, but more with giving and taking. Most of them wanted to be recognized especially by their tutors for the learning experience they brought to academia. In this context, tutors played a crucial role, as they could facilitate their sense of belonging (inviting them to reading groups, letting them define their essay topics, getting to know them, etc.) or make it more arduous when ignoring their prior learning experience.

“There appears to be a poor view of student's abilities from some quarters and I wonder whether this is symptomatic of a deeper cultural problem (...) a lecturer asked me "when was the last time you did any learning before you came to university"? This lecturer already knew that I had 40 years of work behind me. Do lecturers really believe that no learning goes on in a work environment?” (Sophie, Evernote documentary, over 30’s mature, Social Sciences).

What are the impacts of informal support and peer relationships on mature students in their learning lives?

Mature students experienced difficulties when trying to integrate socially. This generated a sense of isolation that was, to a great extent, reproduced in (non)participation in social media and informal social networks used by younger peers. Nonetheless, they exploited their networks to find people from similar backgrounds they could work with, as well as to provide and receive emotional support:

“Many of us come from backgrounds where university was not an inevitable path of our lives, and where we weren't always taught in a manner that prepared us for the academic culture of universities. It is with people of similar backgrounds to mine, or at least backgrounds that don't entail privilege that was previously unimaginable to me, that I find myself having these conversations with the most - with people similar to me who make me feel part of a wider support network” (Julie, Evernote documentary, 20’s

mature, Social Sciences).

Some of the mature students were inclined to build social relationships with students coming from similar backgrounds, and took part in activities with other mature students, as they were critical of the younger ones. As most of the mature students chose not to be part of the drinking and clubbing culture predominant in the younger students' socialising activities, they tended to establish significant relationships with a restricted group of people:

"We are quite quick to pick up on who else is, you know asking the right questions and staying behind to do the lecture and not talking about how much they drank last night" (Stuart, Interview, over 30's mature, Science).

How are digital technologies being mobilised by mature students for educational, cultural and social purposes?

Many of the mature students were active users of digital technologies. They were especially keen on using them to make their studies more effective and expand the learning derived from their courses. Common practices were to search for alternative teaching material in YouTube or discussing and sharing resources with their group of friends through Skype or FaceTime. Mature students were also active in mobilizing resources, such as organizing a library book rota in high demand through Facebook.

"This past week I have found use of YouTube for actual degree level teaching, specifically from an Antipodean engineering lecturer, whose YouTube channel covers in great detail, aspects of engineering focused maths. Specifically I obtained a new and more elegant method of working out if a loop or surface matrix carries potential. This is one of our topics in physical mathematics, so was an excellent addition to the lecture based, dry rigour of pure maths."

(Stuart, Documentary, over 30's mature, Science).

We also found a differing use of digital technologies: some 20's mature students took leadership positions and used digital technologies widely. In line with previous research (Tett, 2004; Tett et al. 2012), they also tended to collaborate with a restricted group of peers, whom they felt shared similar challenges for integration. In this context, digital technologies played a prominent role in reshaping their experiences by helping them expand social encounters as well as finding their voice in digital figured worlds such as online spaces and networks for academic studying. Furthermore, over 30's mature students used digital tools for studying and socializing in more restricted (but sometimes more creative) ways than their younger

counterparts from similar backgrounds. Digital technologies facilitated over 30's mature students' sense of belonging, particularly when they could participate remotely and work across boundaries in formal and informal settings. In some cases online social networks were the only way in which over 30's mature students engaged in 'being at university' (for example accessing online spaces remotely when doing part-time work). However, for those who chose to absent themselves or were not part of these pervasive online networks, their non-participation tended to reinforce existing inequalities and exclusionary practices (Hughes, 2009). This was the case for Tilly, an over 30's mature student and single mother who worked extended hours (20 hours a week) as a waitress, and volunteered in a children organization. Digital technologies did not help her cope with her feelings of being overwhelmed with her studies, nor did they improve her sense of belonging:

"Trying to get caught up, desperately. I'm drifting further and further behind. So, reading a lot. Writing, yeah. Basically what I always do I suppose (Tilly, Interview, over 30's mature, Social Sciences).

Discussion

Making visible under-represented mature students enrolled in undergraduate HE, requires them not just to be included in studies dealing with participation, retention and outcomes, but also to problematize the assumed universal experience that uses age uncritically as the key indicator. As reported by previous studies (Crozier et al., 2008; Thomas, 2012; McCune et al., 2010; McVitty, Morris & Million, 2012) we advocate for the need of making visible the heterogeneity of undergraduate students grouped under the category 'mature', as well as paying attention to the critical ways in which they experience undergraduate education. Given that in our study, the age of mature students was very wide -ranging from 22 to 78- as in previous studies (i.e Christie et al. 2016), we suggest differentiating between those that are a few years ahead of the school leavers (over 21 to 30) group, from the 'over 30's mature' students. Even though differences between these groups were not part of the original design of our study, we applied these sub-categories in the analysis to examine heterogeneity. Although mature students coming from widening participation backgrounds transitioned successfully through the academic and social worlds of a research-intensive university (Holland et al., 1998), the 20's mature students faced different challenges from the over 30's mature students in terms of belonging and participation. Whilst the 20's mature students were not necessarily facing an evident age barrier, they tended to position themselves differently to the younger students in terms experiences and background. Also, most of them were struggling financially, having to work long hours for subsistence, in jobs outside the university, which was detrimental for their academic and social experiences, sense of belonging and general wellbeing. In those cases

where they had had prior experience in higher education in alternative institutions, dual or complex hybrid identities were evident. Although these identities were sometimes conflicting, their previous experiences in university figured worlds supported their academic positionality and made belonging and transitions easier (Holland et al, 1998). Over 30's mature students were more established at home, faced constraints derived from travelling or living locally, and prioritized the academic over the social. As described in other studies (Powell, 1992; Richardson, 1994; Reay, 2002), our study demonstrates that mature students' motivation to carry on with their studies was strong, as well as the support provided from their families. However, mature students coming from under-represented backgrounds experience greater difficulties in making the transition into undergraduate education (for example Tett, 2004; Reay, Crozier & Clayton, 2009; Tett et al. 2012). In our study, mature students experienced multifaceted challenges, resulting in them being under-represented in terms of their social background, age, financial circumstances, family commitments and living location, which posed challenges for integration, participation and belonging. Digital technologies played a prominent role by helping most of them expand their social encounters, finding their voice in a digital figured world, reshaping their individual study strategies and providing a means of participating while not at university. Yet, social encounters or figured digital worlds were not helpful in overcoming existing social inequalities (Hughes, 2009). By contrast, we argue that for mature students coming from widening participation backgrounds, developing a sense of belonging was related to positionality, as they represented a minority within a minority in a privileged environment.

In terms of using digital technologies for studying purposes, over 30's mature students tended to use fewer digital tools more intensively. They were inclined to use online social media less frequently with a more restricted group than the 20's mature and their younger peers coming from similar backgrounds. Yet, their use of digital technologies was innovative in its own way. They found means of integrating new tools (such as Evernote) with other media they were familiar with (for example books from libraries, radio and newspapers).

Limitations and future directions

It is important to acknowledge that this was a small case study with eleven mature students who volunteered to take part in this research. Although we explored the intersections of mature students with relevant categories such as gender and ethnicity, connections with other dimensions (such as class, immigration status, religious belief and disability) that previous research with mature students have shown relevant, were not considered. Furthermore, the co-researchers came from different programmes and faculties, so future studies should consider the role that different

institutional arrangements (such as faculties, schools and careers) play in terms of student experiences. Therefore our findings, rather than being exhaustive, should be considered exploratory.

Conclusions

As we have previously argued, identity is socially situated and it is formed not only through participation, but also positionality (Holland et al., 1998), which reveals that the institutional positioning of students in our study is important. Mature students and those from widening participation are usually identified by universities through standard indicators, which may be inadequate to help reveal their lived experiences or understand the complexities stemming from the intersecting identities they inhabit. This study has shown how institutional and social positionings constrained mature students' academic and social integration. In this context, the role of informal online networks helped, to some extent, to overcome difficulties, but did not remove the integration barriers these students faced. We conclude that online social networking practices can potentially support the retention and success of mature students by helping to integrate social and academic endeavours led by themselves, expand modes of belonging and participation and contribute to repositioned identities. Finally, the following reflection, posed by Julie in one documentary, highlights the pressing need for institutional improvements:

"I often wonder if the feelings of isolation I've experienced at times during my degree would be lessened in a less prestigious university with a much more diverse range of students"

In order to translate improvisations carried out by mature students coming from disadvantaged backgrounds into successful experiences, participation, retention and outcomes, universities need to embrace diversity in the social and academic spheres of undergraduate education.

We have added 'mature' to the original research questions in order to focus on the subsample of eleven participants reported here.

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